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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,534	12/27/1999	ANTHONY MAZZURCO	036560.6630	8878

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ALCATEL USA
INTELLECTUAL PROPERTY DEPARTMENT
3400 W. PLANO PARKWAY, MS LEGL2
PLANO, TX 75075

EXAMINER

JAGANNATHAN, MELANIE

ART UNIT	PAPER NUMBER
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2666

11

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/472,534

Applicant(s)

MAZZURCO ET AL.

Examiner

Melanie Jagannathan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims **1,4-12,14,15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tounai in view of Ishiwatari U.S. 6,201,788.

Regarding claims **1,8,10,11**, the claimed receiving an inbound working channel and an inbound protection channel at an input interface is disclosed by switch (Figure 1, element 4) receiving working line (element 1A) and protection line (element 2A). The claimed determining a signal quality of the inbound working and protection channels and selecting one of inbound working and protection channels into switch (element 4) in equipment #2 in response to signal quality is disclosed by control means (element 5) generating automatic protection scheme and

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having of function of detecting various alarms for when a failure occurs. See column 3, lines 42-59. The claimed providing the selected one of inbound working and protection channels to switching matrix is disclosed by selected channel being provided from equipment #2 to switch (element 4) in equipment #1 in order to maintain predetermined connections between equipments and incur no loss of data and prevent suspension of service. See column 1, lines 21-30 and column 3, lines 34-36.

Tounai discloses all the limitations of the claims except for a switching matrix receiving one of inbound working and protection channels, switching matrix operable to output selected one of inbound working and protection channel, maintaining connections regardless of which channel selected. Ishiwatari discloses transmission device (Figure 9A) receiving data from working optical fiber cables and transmitting data to other transmission devices and maintaining connections despite fault by use of loop-back formation as part of automatic protection scheme. See column 4, lines 6-37. At the time the invention was made, it would have been obvious to have switching matrix operable to receive and output one of inbound working and protection channels in the system of Tounai. One would be motivated to do this in order to transmit data despite failure of working channel.

Regarding claim 6, the claimed network protection being a 1+1 linear APS protection scheme is disclosed by use of the bi-directional of the 1+1 method. See column 7, lines 8-9.

Regarding claim 7, the claimed bi-directional line switched ring protection implementing span switch is disclosed by use of the bi-directional of the 1+1 APS method with switch for selecting working or protection line and SONET rings (Figures 16 and 33).

Regarding claim 9, the claimed receiving of control signal determining the selection of one of the inbound working and protection channels is disclosed by control mean (element 5) generating automatic protection scheme.

Regarding claims 4,5,12,14,15, Tounai discloses an outbound working channel and outbound protection channel (Figure 1, element 1B and 2B) but does not disclose switching the inbound working channel to the outbound protection channel and switching the inbound protection channel to the outbound working channel thus preventing information from being provided to the switching matrix. Ishiwatari discloses a SONET network (Figure 9A) implementing an automatic protection scheme for when a fault occurs on an optical fiber cable of the system (Figure 9A, element 11₁) where loop-back formation is made such that the working channels in fiber cable (Figure 9B, element 11₁) via signals are received from transmission device (Figure 9B, element 10C) are coupled to the protection channels (element 11₂) via which signals sent to transmission device 10C and then making a loop-back where protection channels are coupled to the working channels extending from transmission 10D. See column 4, lines 6-37. At the time the invention was made, it would have been obvious to implement loop-back formation in the system of Tounai. One would be motivated to do this for preventing faulty packets from being transmitted and determining location of fault.

3. Claims 2,3,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tounai and Ishiwatari in view of Dempsey U.S. 6,526,021.

Regarding claims 2,3,13, Tounai and Ishiwatari disclose all the limitations of the claims except for claimed receiving of plurality of inbound working channels and protection channel and providing a protection switch request. Dempsey discloses a 1:N protection configuration

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(Figure 1) where there are N working channels and one protection channel. The claimed selecting of plurality of inbound working channels and inbound protection channel and providing traffic is disclosed in if working channel fails, traffic is switched to protection channel. See column 5, lines 45-60. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include a plurality of working channels and a protection channel for a 1:N protection scheme. One of ordinary skill in the art would be motivated to do this for protection against failure involving more than one data channel.

Response to Arguments

4. Applicant's arguments filed 8/13/2003 have been fully considered but are moot in view of new grounds of rejection.

Regarding claim 1, Applicant argues reference Tounai does not disclose amended limitation of the switching matrix outputs the selected one of inbound working and protection channels over a predetermined connection, the switching matrix maintaining connections regardless of which one inbound working and protection channels is selected. Examiner submits new grounds of rejection for claim 1, Tounai in view of Ishiwatari.

Regarding claims 1, 11, Applicant argues reference Ishiwatari does not disclose providing the selected one of inbound working and protection channels to a switching matrix, the switching matrix outputs the selected one of inbound working and protection channels over a predetermined connection, the switching matrix maintaining connections regardless of which one inbound working and protection channels is selected. Examiner contends Ishiwatari discloses

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transmission device (Figure 9A) receiving data from working optical fiber cables and transmitting data to other transmission devices and maintaining connections despite fault by use of loop-back formation as part of automatic protection scheme. Loop-back formation is made such that the working channels in fiber cable (Figure 9B, element 11₁) via signals are received from transmission device (Figure 9B, element 10C) are coupled to the protection channels (element 11₂) via which signals sent to transmission device 10C and then making a loop-back where protection channels are coupled to the working channels extending from transmission 10D. See column 4, lines 6-37.

Regarding claims 4, 5, 12, 14-15, Applicant argues rejection of Tounai in view of Ishiwatari is not proper since reference Ishiwatari fails to disclose the limitations of claim “switching inbound protection channel to outbound working channel, switching of inbound working and protection channels preventing information from being provided to switching matrix. Applicant argues specification of instant application discloses, through prior art, cutting another connection through the matrix of switch performs the protection switch and Ishiwatari nowhere describes how the loopback formation is implemented.

Examiner contends Ishiwatari discloses a SONET network (Figure 9A) implementing an automatic protection scheme for when a fault occurs on an optical fiber cable of the system (Figure 9A, element 11₁) where loop-back formation is made such that the working channels in fiber cable (Figure 9B, element 11₁) via signals are received from transmission device (Figure 9B, element 10C) are coupled to the protection channels (element 11₂) via which signals sent to transmission device 10C and then making a loop-back where protection channels are coupled to the working channels extending from transmission 10D. See column 4, lines 6-37.

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Therefore, for the above outlined reasons, Examiner maintains rejection is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078.

The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Melanie Jagannathan
Patent Examiner
AU 2666

Fax Seema S. Rao
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